Accident / Incident Report Closed

Unit/Department	Process Area	Site	Report Number
South Operation-Elyria	**General Catalyst – Building 31**	**ELYRIA**	**0084-SOPS-15-0036**
Report Date	Incident Date	Incident Time	Copied From
04/01/2015	**04/01/2015**	**10:30 AM**	
Incident Location		Team Leader / Supervisor	Reported By
Building 31 and building 16.		**Terrence M Vanderbosch**	**Ventura Veliz**
Title of Event (Limit to 90 characters)		Category	Division / Bus. Group / Subgroup Code
Nox evacuation of building 31 and building 16.		☐ Safety & Health ☐ Environmental	**CC / G-CCP**

Incident Classification

☐ Near Miss	☐ Property Loss	☐ Contractor
☐ Process Safety	☐ Citation / NOV	☐ Contractor Injury / Illness
☐ Injury / Illness	☐ Health Exposure	☐ Contract Injury / Illness
☒ Spill / Release	☐ Inspection	☐ PSM
☐ Permit / Regulatory Deviation	☐ Major Incident	☒ Plant Upset
☐ Fire	☐ Non-Occupational	☐ EHS Management System Failure
☐ Odor Complaint	☐ RMP	☐ Other

Describe Event / What Happened

Group Leader returned to building 31 where he was met by a member of maintenance who said that they smelled Nox. The Group Leader checked the Nox meter that was located nearby on #1 calciner that read 0.2 ppm. He then instructed the maintenance operator to retrieve a hand held meter. The Group Leader then went to open some of the overhead doors in order to ventilate the building. The maintenance operator then met the Group Leader on the second floor and told him that he was getting readings on the hand held meter. The Group Leader took the meter and was getting as high as a 2.0 ppm on the second floor. He then went to the third floor where he got as high as a 3.8 ppm. After returning to the second floor to head towards building 16 he was met by a contractor by #3 calciner feed hopper that was performing hot work in building 16. The contractor said he had gotten a Nox reading of 10.0 ppm by the Vacumax for #5 calciner. At that point, the meter that the Group Leader was holding registered a 6.8 ppm. The announcement was then made over the radio to evacuate the building.

Immediate Corrective Action or Response

Evacuate building. Send ERT entry team into the building to get an "all clear" of the building of Nox. The entry team also engaged the F-1 scrubber, as well as switch #1 calciner exhaust to the F-1 scrubber.

Immediate Cause

Possibility of residual Nox left from product remaining in #4 or #1 calciner. There is also a possibility of #3 calciner creating Nox that will need to be investigated further.

Spill Release Type(s)	**Non RQ Spill / Release**						
Chemical(s) Involved	CAS #	Phy. State	Air	Land	Water	Contmt	Units
Nitrogen Dioxide (NOx)	10102-44-0	Gas	.05	0	0	0	lbs

Disposition of Material	**Release in building**			
Weather Conditions	Skies:	Temperature:	Wind Direction:	Wind Speed:

Cause Narrative

The Trimer scrubber was being worked on. To prepare for this work the feed to both calciners was turned of at 6:30 am. At this time 4 RC kicked out and began to cool off. The Trimer scrubber was turned off at about 10:00 am. Nitrate fumes were discovered around 10:30 am near 4RC when the contractors returned back to the area.

When the Trimer scrubber was turned off the ventilation was stopped to both calciners. The residual nitrates left in the

Ni-2458 began to fume. Note product has 0.4 - 0.8 % residual nitrates left in the product upon calcination.			
Contributing Causes	Root/Primary Causes		
Calciner kicked out when feed was shut off to calciner	138 - Human Factors Engineering	160 - Intolerant System	161 - Errors Not Detectable
There is no documented procedure on how to shut down and prepare pollution control equipment for it to be worked on to ensure no nitrates are left	111 - Procedures	112 - Not Used	116 - No Procedure for Task

Explanation of Root Causes
161 - There is residual Nox in the product even at temperature. When the feed turned off the calciner kicked out

Any known or potential off-site impacts?	**No**	PSM Incident?	**No**	Estimated Cost:	**5,000.00 USD**
Investigation Team	**Jefferson Lewis; Terrence M Vanderbosch; John R Crawford; Leon Zavodnik; Andre Washington; Rory O-Donnell**				

Item	Corrective Action(s) to prevent recurrence	Responsible Person	Target Date	Final Closed Date	VC Req	VE Req
1	Investigate why 4 RC calciner kicked out when feed was turned off to determine if any programming changes need to be made to avoid reoccurence	Kirk Sullenberger/BASF-CATALYSTS/BASF	09/06/2015	08/28/2015	N	N
2	Develop a procedure to shutdown and prepare calciners and pollution control equipment to ensure no nitrates are in calciner so equipment can be shutdown	Jefferson Lewis/NA/BASF	09/06/2015	07/09/2015	N	N

Approved By:	
Manager / Dept. Head	**Leon Zavodnik 04/06/2015 02:41 PM**
EHS Unit Coordinator	**Dean R Gadoury 04/06/2015 03:27 PM**
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